

*Gmelin Handbook of Inorganic Chemistry*. 8th Edition. *Cu — Organocopper Compounds. Part 2*. Springer-Verlag, Berlin etc., x + 247 pages, DM 870, ISBN 3-540-93490-1.

This volume (written by J. Faust and R. Froböse) is of direct interest to organometallic chemists, since it is devoted entirely to organocopper compounds, but it will also be of considerable value to organic chemists, since much of it deals with the use of the organocopper reagents in organic reactions. The compounds included are those which formally contain only one copper atom in the molecule, though it is pointed out that many of them may, in fact, be polynuclear species.

As would be expected, most of the space (206 out of the 247 pages) is taken up by  $R_2CuLi$  and  $RR'CuLi$  species, and most of the space within that section is concerned with reactions with organic substrates; reactions with other organometallic compounds occupy only a few pages. The other types dealt with are those formulated as  $R_2Cu$ ,  $RR'Cu$ ,  $[(R_3PCHR')_2Cu]Cl$ ,  $R_2CuMgX$ ,  $RR'CuMgX$ ,  $[Cu(dppe)_2][CuR_2]$ ,  $R_2CuAg$ ,  $R_2CuAu$ ,  $R_2CuZnI$ ,  $R_3CuLi_2$ ,  $R_2R'CuLi_2$ ,  $R_3CuMg$ ,  $R_2R'Cu(MgX)_2$ ,  $R_4CuLi_3$ ,  $R_5CuLi_4$ ,  $R_6CuLi_5$ ,  $R_nR'CuLi_n$  ( $n = 3-5$ ), but in some cases there are only a few examples of the type.

The account is admirably up-to-date. Thus the literature is completely covered to the end of 1981, and important references from 1982 and 1983 are included. One of the entries for 1983 deals with the compound  $[Cu(dppe)_2][Cu(C_6H_2Me_3-2,4,6)_2]$ , the first mononuclear organocuprate to be structurally characterized; unfortunately one of the very rare errors to be found in Gmelin volumes occurs in this entry, the  $[Cu(dppe)_2]$  being described as the anion and the  $[CuR_2]$  as the cation, whereas, of course, the opposite is the case. To my regret, the first structural characterization of an  $R_2CuLi$  species, within my own group, appeared too late to find a place in this admirable compilation.

All the Gmelin volumes are important, but this one will be especially welcomed in view of the considerable current interest in organocopper compounds. It is strongly recommended.

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*Gmelin Handbook of Inorganic Chemistry*. 8th Edition, *Sc, Y, La-Lu, Rare Earth Elements. Part D 6. Ion Exchange and Solvent Extraction Reactions. Organometallic Compounds*; by J.H. Forsberg, Y. Marcus, and T. Moeller, volume authors; T. Moeller, U. Krüerke, and E. Schleitzer-Rust, editors. Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York/Tokyo, 1983, xii + 304 pages, DM 1012.

This is a most valuable and timely volume for those organometallic chemists with interests in the chemistry of the lanthanide elements and their precursors, scandium and yttrium, because the literature up to the end of 1981 is covered here in detail, with occasional references to 1982.